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Patent Claims

- 5 1. Control of an electric motor which can be switched
between the motor mode and the generator mode, is
coupled or can be coupled to an internal combustion
engine and has an associated battery, in particular in
a hybrid drive (1) with an internal combustion engine
10 (2) and an electric motor (3) which can be switched
between the generator mode and the motor mode, as well
as a battery (6), which is associated with the electric
motor and has a sensor system which records its state
of charge, in which case the internal combustion engine
15 and the electric motor are coupled and/or can be
coupled to the output drive (5) of the hybrid drive for
drive purposes, and the electric motor can be driven by
the internal combustion engine and/or the output drive
during the generator mode,
20 characterized
in that, during operating phases in which the internal
combustion engine is operating and is coupled to the
output drive, the electric motor operates
- predominantly in the generator mode only when the
25 load on the internal combustion engine is low,
and/or
- predominantly in the motor mode when the load on
the internal combustion engine is high.
- 30 2. Control as claimed in claim 1,
characterized
in that data for changes which occur in the fuel
consumption of the internal combustion engine (2) which
occur in the event of load changes can be recorded as a
35 function of the rotation speed of the internal
combustion engine (2), and/or are stored, and the
electric motor (3)

- is operated as a generator when the quotient of the load change and the consumption change exceeds a first threshold value and/or
 - 5 - is operated as a motor when the quotient of the load change and the consumption change of the internal combustion engine is less than the above-mentioned threshold value or a second threshold value.
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3. Control as claimed in claim 1 or 2, characterized in that the electric motor is operated with increasing generator power when the quotient of the load change and the consumption change of the internal combustion engine increases.
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4. Control as claimed in one of claims 1 to 3, characterized in that the electric motor is operated with increasing motor power when the quotient of the load change and consumption change of the internal combustion engine falls.
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5. Control as claimed in one of claims 1 to 4, characterized in that, if the electric motor (3) is continuously positively coupled to the output drive (5), the electric motor always operates either in the motor mode or in the generator mode.
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